AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of generating on an output line a high-power modulated radio frequency signal from a low or medium frequency information signal, comprising:

pulse-shaping the information signal using sampling having a sampling frequency to form a digital signal having at least two discrete signal values;

generating for each of the discrete signal values a corresponding alternating current (AC) carrier signal;

using each discrete signal value to control connecting the corresponding AC carrier signal to the output line to produce a switched radio frequency signal carrying the information signal; and

filtering the switched radio frequency signal for obtaining the high-power modulated radio frequency signal,

wherein in connecting the AC carrier signals, the times at which the connecting of any of the AC carrier signals is started or ended are chosen to coincide with a moment at which the respective AC carrier signal is equal to zero or is close to zero to avoid energy losses during the starting or ending of the connecting.

2. (Previously Presented) The method according to claim 1, wherein in the step of generating, the AC carrier signals are generated to have frequencies being multiples of the sampling frequency of digital signal.

3. (Currently Amended) ~~The method according to claim 1~~, A method of generating on an output line a high-power modulated radio frequency signal from a low or medium frequency information signal, comprising:

pulse-shaping the information signal using sampling having a sampling frequency to form a digital signal having at least two discrete signal values;

generating for each of the discrete signal values a corresponding alternating current (AC) carrier signal;

using each discrete signal value to control connecting the corresponding AC carrier signal to the output line to produce a switched radio frequency signal carrying the information signal; and

filtering the switched radio frequency signal for obtaining the high-power modulated radio frequency signal,

wherein in the step of generating, the AC carrier signals are generated to be sinusoidal signals.

4. (Previously Presented) The method according to claim 3, wherein in the step of filtering, a band-pass filtering is made rejecting distortion and/or an unwanted side band produced by the controlled connecting of the carriers in the step of mixing and amplifying.

5. (Canceled).

6. (Currently Amended) ~~The method according to claim 1,~~ A method of generating on an output line a high-power modulated radio frequency signal from a low or medium frequency information signal, comprising:

pulse-shaping the information signal using sampling having a sampling frequency to form a digital signal having at least two discrete signal values;

generating for each of the discrete signal values a corresponding alternating current (AC) carrier signal;

using each discrete signal value to control connecting the corresponding AC carrier signal to the output line to produce a switched radio frequency signal carrying the information signal; and

filtering the switched radio frequency signal for obtaining the high-power modulated radio frequency signal,

wherein in the step of generating, the AC carrier signals are generated as non-sinusoidal signal to be sums of frequency components, all of the components having frequencies being integer multiples of the sampling frequency.

7. (Previously Presented) The method according to claim 6, wherein in the step of generating, the AC carrier signals are generated to stay close to zero for a time period at or around the times at which the connecting of any of the AC carrier signals is started or ended.

8. (Previously Presented) The method according to claim 1, wherein the information signal is quadrature shifted in two components so that, in the step of pulse-shaping, two digital signals are formed, each having at least two discrete signal values, and that in the step of generating, AC carrier signals are generated for each of the signal values of the two digital signals, the AC carrier signals generated for the signal values of one of the digital signals having a 90 degrees phase-difference in relation to the AC carriers generated for the signal values of another of the two digital signals.

9. (Previously Presented) The method according to claim 8, wherein side-bands of the switched radio frequency signal are used as two linearly independent channels as in the quadrature phase I and Q arrangement.

10. (Previously Presented) The method according to claim 8, wherein when one band-pass filter is used, the signals are added before the filter.

11. (Currently Amended) ~~The method according to claim 8,~~ A method of generating on an output line a high-power modulated radio frequency signal from a low or medium frequency information signal, comprising:

pulse-shaping the information signal using sampling having a sampling frequency to form a digital signal having at least two discrete signal values;

generating for each of the discrete signal values a corresponding alternating current (AC) carrier signal;

using each discrete signal value to control connecting the corresponding AC carrier signal to the output line to produce a switched radio frequency signal carrying the information signal; and

filtering the switched radio frequency signal for obtaining the high-power modulated radio frequency signal,

wherein the information signal is quadrature shifted in two components so that, in the step of pulse-shaping, two digital signals are formed, each having at least two discrete signal values, and that in the step of generating, AC carrier signals are generated for each of the signal values of the two digital signals, the AC carrier signals generated for the signal values of one of the digital signals having a 90 degrees phase-difference in relation to the AC carriers generated for the signal values of another of the two digital signals, and

wherein when two band-pass filters are used for filtering, the AC carrier signals are added after the band-pass filters.

12. (Original) The method according to claim 8, wherein the filter(s) is/are (a) band-pass filter(s) rejecting distortion achieved by the amplification.

13. (Previously Presented) The method according to claim 1, wherein in the step of pulse-shaping, a digital signal having only two signal values is formed.

14. (Previously Presented) Apparatus for generating a high-power modulated radio frequency signal from a low or medium frequency information signal, comprising:

a quantifier for pulse-shaping, according to a sampling frequency, the information signal to form a digital signal having at least two discrete signal values;

a switching unit connected to the quantifier to receive the digital signal and including multiple alternating current (AC) carrier signal generators, one individual AC carrier signal generator provided for and associated with each of the at least two signal values; and

a filter connected to an output line of the switching unit for providing the high-power modulated radio frequency signal,

wherein the switching unit includes switches for providing a switched radio frequency signal carrying the information content of the information signal, and

wherein each of the switches is associated with and controlled by one of the digital signal values to connect the AC carrier signal generator associated with the signal value to the output line when the digital signal adopts the respective signal value and to disconnect the AC carrier signal generator when the digital signal does not adopt the respective signal value.

15. (Original) The apparatus according to claim 14, wherein the quantifier comprises a sigma-delta modulator.

16. (Previously Presented) The apparatus according to claim 14, wherein the filter is a band-pass filter for rejecting unwanted signals and distortion achieved by controlled connecting and disconnecting of the AC signal generators.

17. (Previously Presented) The apparatus according to claim 14, wherein the AC carrier signal generators includes a transformer coupled to a single AC carrier generator element to generate AC carrier signal voltages having different amplitudes.

18. (Previously Presented) The apparatus according to claim 14, wherein the quantifier is configured to generate the digital signal values to connect or disconnect the AC carrier signals at times when the AC carrier signals have a magnitude at or near zero.